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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/537,589

10/17/2005

Hitoshi Isono

2005-0921A

5165

513

7590

12/28/2007

WENDEROTH, LIND & PONACK, L.L.P.  
2033 K STREET N. W.  
SUITE 800  
WASHINGTON, DC 20006-1021

EXAMINER

CULLER, JILL E

ART UNIT

PAPER NUMBER

2854

MAIL DATE

DELIVERY MODE

12/28/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

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## Office Action Summary

Application No.

10/537,589

Applicant(s)

ISONO ET AL.

Examiner

Jill E. Culler

Art Unit

2854

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 31-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 31 and 33 is/are rejected.
- 7) ☒ Claim(s) 32 and 34 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☒ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 31 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2002-079259 in view of JP 2002-292834 and JP 2001-315312

With respect to claim 31, JP 2002-079259 teaches a waste liquid regeneration apparatus for a printer, comprising: a vessel into which waste liquid containing ink pigment, water and cleaning fluid used in the printer is supplied; a first and second chamber provided in said vessel; a metal electrode plate disposed in said vessel so as to partition said first chamber from said second chamber while allowing the waste liquid to flow between said first chamber and said second chamber; and a high-voltage power supply for applying a voltage to said metal electrode plate; and a grounding electrode. See Abstract and machine translation paragraph 9.

JP 2002-079259 does not teach that said metal electrode plate is disposed substantially horizontally in said vessel, said metal electrode plate having a top surface facing said second chamber and an under surface facing said first chamber, or that a third chamber is located below said first chamber and separated from said metal electrode plate, for reserving water, or that said grounding electrode is connected to the water in said third chamber, or a waste liquid supplying apparatus for supplying the

waste liquid to said first chamber, said waste liquid supplying apparatus having an intermittent supplying mode in which mode the waste liquid is alternately supplied and stopped from being supplied to said first chamber.

JP 2002-292834 teaches a waste liquid regeneration apparatus having a metal electrode plate disposed substantially horizontally in a vessel to form a first chamber and a second chamber, said metal electrode plate having a top surface facing said second chamber and an under surface facing said first chamber, and a third chamber, located below the first chamber and separated from said metal electrode plate, for reserving water, a grounding electrode connected to the water in the third chamber. See Abstract and machine translation.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the apparatus of JP 2002-079259 to have the horizontal electrode plate and a third reserve chamber, as taught by JP 2002-292834 in order to benefit from the actions of gravity in the system.

JP 2001-315312 teaches a waste liquid regeneration apparatus that further comprises a waste liquid supplying apparatus for supplying the waste liquid to said first chamber, and that said waste liquid supplying apparatus is configured so as to allow operation thereof in accordance with an intermittent supplying method wherein supply of the waste liquid and stopping of the supply are performed alternately. See machine translation paragraphs 18 and 23.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the apparatus of JP 2002-079259 to have the configuration, as

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taught by JP 2001-315312 so that the process is not negatively affected by the starting and stopping of the wastewater supply.

With respect to claim 33, JP 2002-079259 does not teach that said waste liquid supply apparatus further has a continuous supplying mode in which the waste liquid is supplied continuously to said first chamber, said waste liquid supplying apparatus being operable to be switched between said intermittent supplying mode and said continuous supplying mode.

JP 2001-315312 teaches a waste liquid supplying apparatus which further has a continuous supplying mode in which the waste liquid is supplied continuously to said first chamber, said waste liquid supplying apparatus being operable to be switched between said intermittent supplying mode and said continuous supplying mode. See translation paragraphs 18 and 23.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the apparatus of JP 2002-079259 to have the configuration, as taught by JP 2001-315312 so that the process is capable of handling a continuous wastewater supply.

### ***Allowable Subject Matter***

3. Claims 32 and 34 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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The following is a statement of reasons for the indication of allowable subject matter:

With respect to claim 32, the prior art does not teach or render obvious a waste liquid regeneration apparatus as claimed, particularly including a control apparatus for controlling at least one of a supply rate, supply time and stopping time of the waste liquid by the waste liquid supply apparatus in response to a detection result such that the concentration of the ink pigment in the regenerated cleaning fluid remains within a predetermined control range.

With respect to claim 34, the prior art does not teach or render obvious a waste liquid regeneration apparatus as claimed, particularly including a changeover apparatus for changing over said waste liquid supplying apparatus between an intermittent supply mode and a continuous supplying mode as a result of a detection by a detection apparatus in such a manner that when the concentration of water in the waste liquid is within a predetermined range, the waste liquid supplying apparatus is operated in the intermittent supplying mode, and when the concentration of water in the waste liquid is outside the predetermined range the waste liquid supplying apparatus is operated in the continuous supplying mode.

#### ***Response to Arguments***

4. Applicant's arguments filed October 3, 2007 have been fully considered but they are not persuasive.

In response to applicant's argument that that JP2001-315312 does not teach an intermittent supply mode of a waste liquid supplying apparatus that supplies waste liquid to a first chamber, although the reference does not explicitly describe the waste liquid supplying apparatus, the machine translation of the reference, which was made of record by the examiner at the time of the previous office action, describes the function of the apparatus in such a way that the waste liquid supplying apparatus with an intermittent supply mode must inherently be a part of the apparatus in order for it to function as described. The reference discusses the flexibility of washing with a variable time interval, and discusses using the waste fluid regeneration apparatus with the waste liquid from this washing, and therefore an apparatus to supply the waste liquid in an intermittent supply mode would be required by this process.

### ***Conclusion***

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jill E. Culler whose telephone number is (571) 272-2159. The examiner can normally be reached on M-F 10:00-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571) 272-2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

jec

*Jill E. Culler*  
Primary Examiner